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AUTHOR Barratt-Pugh, Llandis
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ABSTRACT

This paper outlines the background and preliminary findings of a study currently in progress in Perth, Western Australia, to investigate the relationship between competence based training and the development of lifelong learning skills. The paper explores both the underlying aims of competency-based training (CBT) and the educational antecedents of the system to establish that there is a political intention and theoretical compatibility between the current system and lifelong learning development. Current concerns about the implementation of CBT system are reviewed and categorized. There are indications that the defined outcomes of CBT foster an environment that may focus primarily upon learner content achievement. This focus can mask the true basis of CBT and inhibit the realization of learner process choice, learner process reflection and the development of lifelong learning skills. The current methodology and instruments which are being used in the research project to examine this area are then described. The paper provides an overview of the initial data analysis which does not indicate a significant relationship between CBT systems and the development of lifelong learning skills. Finally the paper examines some of the factors which appear to be more critical in either inhibiting or facilitating such development and provides a conceptual model of those factors. Contains 57 references. (Author)

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❑ The King's New Courses : *Where are we starting from and what are the problems....*

The recent years have seen great changes in the vocational education system towards a competency based model. Much funding has been expended in the tailoring (Keating, 1992).

The Industry defined, nationally integrated and criterion referenced outcomes of the competence based approach, have attempted to provide a more flexible and relevant vocational training system, to ensure continual updating of the national skill base (NTB, 1992).

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However in many cases the rhetoric has moved far faster than the implementation.

The need to meet funding deadlines has resulted in a rapid rebadging of training courses. This has placed pressure upon the curriculum designers , the training deliverers and the trainees, all of whom have been trying on new products (Moran, 1994).

Beneath the new apparel lie a variety of learning experiences. In some cases the move to CBT has promoted a more open and continuous learning environment where the definition of outcomes has opened up the opportunity of trainees to choose learning methods. While in other cases the establishment of such defined outcomes has led to prescriptive mechanisms of learning. Some times the new clothes are just an illusion.

Perhaps the best illustration of this occurred while searching for suitable data collection sites for the specific research project that is the focus of this paper. A local training provider well known to the researcher and operating a very traditional system volunteered to participate because " *they would be doing the course in CBT next semester.*"

The King's new training courses are in place, but are they really delivering *what was intended* or *what could be delivered* through such a system ?

❑ Where Are The Clothes Made From ; What can we Expect from Them? : *Should we expect CBT systems to deliver lifelong learning.....*

Is there actually a logical connection between the new CBT system and lifelong learning aspirations ? This question is in fact two questions. Let us examine each of them in turn.

1 - Is there a compatibility between the *learning theory* that underlies CBT as an educational system and the development of lifelong learning skills ?

2 - Is it current *government intention* to achieve lifelong learning skill development through the introduction of the CBT system ?

1 - In the first case there does appear to be considerable evidence to support the compatibility of CBT and lifelong learning skills. The competence approach should not simply be viewed as a national system as defined by the NTB (1992) in Australia or the NCVQ (1989) in the UK. It has its roots in the dissatisfaction that a number of writers felt with the current education system in the sixties and seventies and with their suggestions for structural development. Exploring the more recent literature to locate the germination of the competence approach is not an easy task as there is a poverty of academic justification, but considerable government rhetoric (Duffy, 1992). Research would suggest that the following figures from diverse fields have been the most influential and have contributed the main thrusts of the competence approach. They produced the four main components that interlink to provide the conceptual development underlying the competence approach currently being implemented.

FIELD	AUTHOR	ISSUE	RATIONALE
Educational Psychology	Carroll (1963)	Mastery Learning	Emphasised the need for individual learning programmes not fixed to time periods
Instructional Design	Mager (1975)	Behavioural Objectives	Founded the basis of vocational educational programmes being tied to workplace outcomes
Assessment	Glaser (1963)	Criterion Referencing	Consolidated an alternative approach to the existing norm referenced assessment process
Social Development	Toffler (1971) Illich (1971)	Lifelong Learning	Proposed that the response to Postmodern Ed. needs should be a flexible one which replaced front end loading by continual learning

The competence approach is therefore based upon a diverse and complex conceptual framework. There lies within this framework sufficient evidence to indicate that CBT is based upon theory that seeks to introduce continual learning, selfpaced learning and which places learning responsibility on learners to navigate courses towards the learning goals. In short there is evidence that a system based upon such elements encourages reflective learners. Now is there a current intention to realise these intentions ?

2 - There does also appear to be reasonable evidence to assume that government requires the CBT system to deliver lifelong learning development, both from explicit comments and a rational interpretation of their stated objectives for the CBT system.

Much of the Australian system is based upon UK developments in the early 80's. At that time there was a specific focus upon what industry required rather than what learners required. Even so UK government reports referred to the need to *"develop the responsibility and motivation to learn"* for *"future flexibility in the workforce"* (Howard, M, 1992). Surely the intention is implicit ; for continuous flexible learning you need and must develop learning skills.

Similarly the Australian system which was born from the comments of the Dawkins review of 1988 which recognised that *"increasingly, skill formation is becoming a lifelong process"* and the Finn Report (1991) that indicated the need for *"flexible"* learners and the development of core learning skills.

By the time of the Carmichael Report (1991) the intention was more explicit and it indicates that *"the approach favoured by Australia is broad lifelong learning"*. There is even a caution against *"Taylorist approaches"* and narrowly defined content. The new system is encouraged because it *"replaces timebased systems"* and encourages self paced learning.

There was further interest with accommodating lifelong learning skills in the system that can be noted in successive government publications. A specific section was devoted to the need to develop *"cognitive strategies for managers"* in the EFSC publication on Raising Standards (King, 1993).

More recently the birth of ANTA has seen a confirmation of this direct intention with Terry Moran (1993) indicating that indeed *"lifelong learning"* is such a significant current target that it is identified as one of the four critical strategic priorities in the national training plan.

The government has continue to show visible interest in the area of lifelong learning by commissioning an NBEET report to investigate the link between undergraduate learning and lifelong learning. In the report however Candy (1995) expresses the situation well in the context of higher education were he argues that lifelong learning is perceived as the orange peel of the curriculum rather than the central core. Many CBT applications display the symptoms of the same philosophical driving force. This is not surprising as the development of lifelong learning skills is often more a topic of educational debate than in practical evidence at all levels of the educational system. At best it is viewed as an added value component rather than a core philosophy.

So if lifelong learning is embedded within CBT theory and explicitly a target that the government supports for the system, what is currently reality of trainee experience ?

❑ Old Courses In New Clothes : *What are learners currently getting under the CBT badge ?*

Like all systems CBT can be utilised for good or evil.

As we have seen the roots of CBT lie in diverse educational rationale and the current structure is the product of government initiatives. At one end of the continuum it could be argued that the current agenda has been driven by a governmental desire to control learning and feed industry. However at the other extreme, there can be little doubt that the philosophical platform of CBT is built on a theory of learning that recognises individual differences and necessity of building learning skills for the future.

The practical implementation of CBT therefore displays both sides of this dichotomy. While many practitioners have grasped at new ways of facilitating learning, often the institutional emphasis has been upon bureaucratic national standard debates. Couple this with the sometimes entrenched and restrictive practices of tertiary educational institutions and the implementation process has often been steered back towards past routines, content acquisition and outcome achievement at any cost. Lifelong Learning skills somehow get lost along the way.

The attack on the shortcomings of the current system as it is developing today comes both from educationalists diametrically opposed to any CBT system and from practitioners urging for adaptations to the current CBT system. The key thrusts of the arguments can be represented in general terms by the following matrix :

Analysts	Developists	Restrictivists	Philosophists	Structuralists	Processualists
Underlying basis for Competncies is wrong	**Performance is more than just Competence**	**CBT is only relevant to lower oder learning**	**Defined outcomes do not match the needs of Postmodern society and learners**	**The current system is too complex to work efficiently**	**The criterion based system is not being operated properly**
Woodruffe 91 NBEET 91 Hager 94/ 5 Stanley 95 Strong 95	**Hayes 92 Scott 91 Jones 92**	**Towers 92 Morrow 92 Gayle 91/94**	**Collins 91 Soucek 94 Jackson 94**	**Ramsey 93 Moran 94 Curtain 93**	**Baumgart 92 Berryman 93 Winter 89 Fletcher 92 Hager 95**

Note that while the listed authors do discuss the specfic CBT direction indicated they do not necessarily argue for that direction.

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The Analysts provide arguments that focus on the competencies at the heart of the system. They argue often for more general competences at the base CBT, the testing of knowledge as well as skill to improve the effectiveness of the system, or for the addition of levels of achievement within the system.

The Developists do not believe that competence alone will produce performance and encourage attention to the supporting system that builds trainee confidence in the workplace. Final Performance is a function of more than competence.

The Restrictivists view the competence approach as suitable for lower level well defined skill areas enabling other domains to pursue the search for excellence. A system built upon mediocrity is only applicable to hard and limited vocational skills.

The Philosophists argue that there is an incompatibility between the current postmodern social needs of learners and a system that is based upon *corporate rationality* (Collins 91) and viewing learners as workbeings. Restrictive outcomes will produce restricted and constructed learners (Jonassen 91/2).

The Structuralists believe that there has been a pedantic and bureaucratic development of the system that have strangled its potential. The system needs to be simplified to speed the reactivity to workplace change and learners needs.

Finally the Processualists suggest that while many of the previous arguments may be true there is a national system in place that is based upon criterion assessment which can promote more reflective learning, but currently needs nurturing to realise the potential inherent in the continuous assessment process. After all as Fletcher (1992) has commented, it is a mistaken view to see CBT as a system of training rather than assessment. It is essentially a picture frame with blank canvas.

This paper acknowledges the previous arguments but takes the pragmatic Processualist view that the current CBT system, based on criterion assessment, has the capability to develop lifelong learning skills. As Winter (1993) has said *" The emphasis upon criterion-referenced assessment and upon the detailed elaboration of learning outcomes is part of a serious attempt to embody a number of educational principles : a learner centred pedagogy, access to educational opportunity for the cultural disadvantaged, precision and justice in assessment, the encouragement of student autonomy, and the integration of theory and practice".* Are current CBT assessment practices so holistic ?

Changing a system to make this happen is not easy. Reigeluth and Chung (1992) have indicated the relevance of learning processes that are learner directed, but while these intentions may be embedded within CBT theory they may not be being delivered in practice. Nor may the opportunities to develop learning skills through the reflective *Cognitive Apprenticeships* which Berryman (1993) proposes should replace the old vocational training model of the modern era.

Learning designers have traditionally shown a polarised degree of respect for learners and their ability to interact, change, create and choose direction within the curriculum. Thus the learning structures they create reflect such a wide variation of views. The current CBT structures are no different. Despite the fact that CBT has its own distinctive theoretical basis embodying enhanced options for learner responsibility, it *is modified* by each institution through the implementation process, sometimes consciously and other times by default. This means the learner is often faced with a wide variety of disparate learning experiences, nominally grouped under one banner, but operating quite differently and often at conflict with the underlying CBT philosophy. What implications does such diversity have for the learners, not just during their learning experience but afterwards ? What effect does such diversity have upon their lifelong learning skills ?

❑ Measuring Up The New Clothes : Details of the Research Project Methodology....

What it appeared was needed to explore the effect of current CBT implementation was an investigation which would focus on learners to see if in fact they were developing their learning skills as a result of their CBT courses. To find out if possible, what appeared to be the critical factors in such a development process.

To pursue this line of exploration it was decided to follow a number of groups of CBT learners in the Perth Metropolitan area who would experience a variety of CBT environments. In total 112 learners representing 7 different learning groups have been followed between January and August this year.

The learners were surveyed at the beginning of their courses to ascertain their learning profile in terms of learning skills using an Instrument developed at the University of Texas (LASSI / START - Weinstein, 1987) which has a significant track record both for self examination and research studies. The participants were then resurveyed in August using the same instrument. At the same time they were invited to indicate what had been the most significant features of the learning environment that they had experienced. The factors they were asked to discriminate between were those regularly indicated as being the core of CBT and CBT assessment practices as well as those indicated by effective instructional learning principles. These factors were culled from an extensive review of the available literature so that the students could indicate what had been the most significant structural influences within their learning environment

The research project is essentially quantitative in nature but also included the collection of learner, instructor and training manager data through focus groups to gain qualitative triangulation.

In total the research has compiled over 12 thousand interrelated responses to questions.

❑ What Job Do The New Clothes Do : *The findings so far.....*

The research analysis is currently only in the initial stages and is not expected to be completed until January 96. However the evident link between the project and the focus of this conference demanded a provisional statement.

At this stage a tabulated comparison of the data collected indicates that there has been no general or significant improvement in the participants learning skills during the relatively short learning period in question while they have been undergoing CBT training courses.

There are variations between the groups of learners who have experienced different CBT learning environments. Further analysis may indicate what were the significant factors that contributed to positive changes in learning skills either in specific individuals or for specific groups.

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❑ What Are The New Clothes Hiding : *What are the current barriers and where to next ?*

There can be little doubt that using CBT to promote lifelong learning is not just about a change of system but is also about a change of philosophy, both for the facilitators, the learners and the institution. Perhaps before analysing where the current system appears to be lacking it is important to state that for some learners the freedom of their particular learning experience did in some cases change their attitudes to learning and radically altered their aspirations.

However there are currently too many dysfunctional processes in evidence for learners to receive full benefit from the current system changes. Many CBT participants do not experience the *broadcast* version or vision of CBT, rather they experience a form of CBT that includes a number of contradictory practices. There are many that have been evident from the comments of the participants in the study. For example :

> The learning was self paced, but only if was finished by June 14th
>
> There was learner choice, but only if it fitted in with the timetable
>
> There was practical application, but only if it could be done in the College
>
> There was APL, but unit accredited had to be replaced by others.

So often the processes that had been created to free the learning experience ended up constricting the process and freezing the learners. The result of the learning experience may be therefore, as before, that many learners may not *learn how to learn* for tomorrow, and of even more concern, they may not even *want* to learn again. Perhaps this indicates one of the most critical lifelong learning skills that learners need to develop, that of motivational control. Learners all too often appear to be developing such skills inspite of, rather than because of, their CBT learning experience.

Thus the new system brings with it the values and practices of the old system. These values and practices mean that while defined CBT outcomes have been introduced, often there has been little increased flexibility in the *process* of learning. This means that the essential elements of choice and reflection which should be operating to facilitate the development of lifelong learning skills may not exist. In their place facets of the old system perpetuate and create barriers to the development of lifelong learning skills. There are no principle villains in this scenario. Each participant in the training system is able introduce dysfunctionality , often unconsciously. These barriers to the development of lifelong learning skills appear to exist at each level of the system.

Trainee
Lacking in Self Mangement Skills due to Prior Learning Experiences
Instructor
Focus on Content Outcomes Decontextualising Learning
Institution
Concern with Time Control and Trainee Grading

The continued analysis of the data that has been collected for the research project may indicate which group of factors have the most significant control over the development of learning skills within CBT environments. Indeed similar qualitative research in the UK is currently highlighting the same concern with issues of learner focus concerning time, responsibility, prescription and grading (Smith, 1995)

If the analysis is able to indicate such significant factors it will direct further research to be focussed towards these factors and perhaps more significantly, enable empirical evidence to be offered to practitioners to direct their attention to the most critical areas for attention, if they wish their CBT systems to promote lifelong learning. Currently the UK is using qualification achievement as an indicator of continued lifelong *"lifetime"* learning(Pickard, 1994). Is this a rational measure ?

Watch this space.

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